Bruhat Bangalore Mahanagara Palike

Executive Engineer

Bytarayanapura Division

QUALITY REPORT

(8th & Part Bill)

(Annexure-1)

Name of Work : PACKAGE NO-6 (CONSIST OF 14 WORKS)

Est. Cost: 1500.00 LAKHS
Job Code: 009-23-000003

MECADEZ
Insight Makes It Happen

Mecadez Core Technologies Private limited
Project Management Consultancy Services

Registered Office: No.80, Aniketana, 14th 'B' Main, West of Chord Road, 2nd Stage, 2nd Phase, Mahalakshmipuram, Bengaluru-560086
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Mecadez Core Technologies Private Limited

Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	Plain Cement Concrete (1:3:6)			
		Quantity Cum	Frequency of Tests	Tests Required	Tests Carried Out
I	**Cement**	123.8	OPC 43 Grade		
1	Consistency test		1Test / Source of Supply	1	1
2	Fineness test		1Test / Source of Supply	1	1
3	Soundness test		1Test / Source of Supply	1	1
4	Compressive strength test				
i	7-days		1Test / Source of Supply	1	1
ii	28-days		1Test / Source of Supply	1	1
II	**Fine Aggregates**				
5	Gradation test		1Test / Day	1	1
III	**Coarse aggregates**				
6	Gradation test		1Test / Day	1	1
7	Water absorption test		Regular Intervals	1	1
8	Impact test		1Test / Source of Supply	1	1

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited

Consultant

Contractor

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Consistency test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (Part 5) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Location	Source of Material
Material	Cement
Sample No	1
Sample Collection Date	12/Nov/2022
	13-Nov-2022

Sl. No.	Description	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
1	Weight of Cement	400	400	400	400	400
2	Percentage of water added (%)	27	28.5	29.5	30	31
3	Weight of Water (gm)	108	114	118	120	124
4	Initial Reading of Plunger (mm)	40	40	40	40	40
5	Difference (mm)	22	17	18	15	5

Results: Standard Consistency of Cement: 31.00%

Note:

i. The results indicated above are based on the tests carried out on the sample at site.
ii. The results relate only to the items tested.
iii. This test report should not be reproduced except in full, without written approval of this laboratory.
iv. Any query regarding the report must be reported immediately.

For Mecadez Core Technologies Private Limited

Authorised Signature

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Fineness test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (Part 5) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Location	Source of Material
Material	Cement
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	13-Nov-2022

Sl. No.	Determination	Trial 1	Trial 2
1	Weight of Cement before sieve (gm)	100	100
2	Weight of residue retained on 90um sieve (gm)	6.4	5.2
3	Percentage retained (%)	6.4	5.2
4	Average Percentage retained (%)	5.80	

Results: Residue of cement is: 5.80 %

Comments: Maximum allowable residue by mass for ordinary portlad cement is 10%

Note:

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For Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Soundness test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (Part 3) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Location	Source of Material
Material	Cement
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	13-Nov-2022

Sl. No.	Description	Trial 1	Trial 2	Trial 3
1	Initial Distance between the indicator points of Lechatelier mould	11	10	11
2	Final Distance between the indicator points of Lechatelier mould	15	17	18
3	Difference or expansion	4	7	7
4	Average Differences or Expansion in mm	6.00		

Results: Difference in Expansion of Cement: 6.00 mm
Comments: Maximum allowable Expansion of cement is 10 mm.

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Compressive strength test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Source of Material
Material	Cement
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	24-Nov-2022

Cube	Cement Grade	Age at Test (Days)	Slump (mm)	Weight (kg)	Dimension (LxWxH)	Density (kg/m3)	Max. Load (KN)	Area (mm2)	Compressive Strength (N/mm2)	Average Sample (N/mm2)
1	43	7	-	0.874	70.6x70.6x70.6	2302	180	4984.36	36.11	35.21
2	43	7	-	0.897	70.6x70.6x70.6	2415	171	4984.36	34.31	

Results: 7-days Compressive strength of cement is 35.21 N/mm^2

Comments: 7-days Compressive strength of cement should not be less than 33 N/mm^2

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Compressive strength test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Source of Material
Material	Cement
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	15-Dec-2022

Cube	Cement Grade	Age at Test (Days)	Slump (mm)	Weight (kg)	Dimension (LxWxH)	Density (kg/m3)	Max. Load (KN)	Area (mm2)	Compressive Strength (N/mm2)	Average Sample (N/mm2)
1	43	28	-	0.824	70.6x70.6x70.6	2287.00	222	4984.36	44.54	45.54
2	43	28	-	0.899	70.6x70.6x70.6	2316.00	232	4984.36	46.55	

Results: 28-days Compressive strength of cement is 45.54 N/mm^2

Comments: 28-days Compressive strength of cement should not be less than 43 N/mm^2

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Gradation test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Source of Material
Material	Fine Aggregates
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	14-Nov-2022

Weight of Sample(gram): 200

Sl No.	IS Sieve Size	Weight retained	% retained	% Cumulative	Cumulative % of Passing		Remarks
					% Passing	Gradation limits	
1	10 mm	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Zone ll Specification for PCC
2	4.75 mm	16.22	8.11	8.11	91.89	90-100	
3	2.36 mm	14.32	7.16	15.27	84.73	75-100	
4	1.18 mm	30.24	15.12	30.39	69.61	55-90	
5	600 µ	56.12	28.06	58.45	41.55	35-59	
6	300 µ	60.14	30.07	88.52	11.48	8-30	
7	150 µ	10.22	5.11	93.63	6.37	0-10	

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Gradation test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev.
Location	Source of Material
Material	Coarse aggregates
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	14-Nov-2022

Weight of Sample: 4000 gms

Sl. No	I.S. Sieve size	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	31.50	0	0.00	0.00	100.00	100	
2	26.50	367	9.18	9.18	90.83	85-95	
3	19.00	451	11.28	20.45	79.55	68-88	
4	9.50	799	19.98	40.43	59.58	45-65	
5	4.75	620	15.50	55.93	44.08	30-55	
6	0.60	840	21.00	76.93	23.08	8-30	
7	0.15	435	10.88	87.80	12.20	5-15	
8	0.08	326	8.15	95.95	4.05	0-5	

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

AE-09

Test Report
Water absorption test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 3) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Source of Material
Material	Coarse aggregates
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	14-Nov-2022

Sl. No.	Particulars	Computations	Test Numbers		Mean
			Test 1	Test 2	
1	Weight of SSD sample	W_1 g	763	763	
2	Wt of Basket Filled with Aggregates Immersed in water	W_2g	2025	2049	
3	Weight of Saturated Aggregate in water	W_sg = W_2- W_1	1262	1286	
4	Weight of saturated surface dry aggregate in Air	W_3 g	2060	2074	
5	Weight of water equal to the Volume of the Aggregate	W_3- W_s	798	788	
6	Weight of Oven dried Aggregate	W_4g	2021	2040	
7	Specific Gravity	W_4/(W_3- W_s)	2.53	2.59	2.56
8	Apparent Specific Gravity	W_4/(W_4- W_s)	2.66	2.71	2.68
9	Water Absorption	(W_4- W_3)*100/ W_4	1.93	1.67	1.80

Comments: Maximum allowable Aggregate Water Absorption value is 2.0%.

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Impact test

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Plain Cement Concrete (1:3:6)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Source of Material
Material	Coarse aggregates
Sample No	1
Sample Collection Date	12/Nov/2022
Testing Date	14-Nov-2022

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1243	1324
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	283	364
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	91	90
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	192	274
6	Aggregate Impact Value (w4 / w3)x100	%	32.16	24.73
7	Specified Limit	%	45.00	

Results: Average Aggregate Impact Value: **28.44** %

Note:

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For Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Mecadez Core Technologies Private Limited

Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	T.M.T Steel of Fe550 Grade			
		Quantity in Tonne	Frequency of Tests	Tests Required	Tests Carried Out
I	Steel				
1	Tensile strength test	15.02	1 sample per source	1	1

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

CONSULTANTS

CONTRACTOR

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Steel

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	T.M.T Steel of Fe550 Grade
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Site
Material	T.M.T Steel of Fe550 Grade
Tested Date	22-Nov-2022

Sl. No.	Dia in mm	Weight in Kg/mtr	Average Weight Kg/mtr	Ultimate Load in KN	Ultimate Tensile stress in N/mm^2	Average Ultimate Tensile Stress N/mm^2	Elongation in (%)	Bending and Rebending
1	8	0.395	0.395	29.27	582.00	584.00	18	OK
	8	0.395		29.47	586.00			
2	10	0.617	0.617	45.89	584.00	583.50	18	OK
	10	0.617		45.81	583.00			
3	12	0.889	0.889	66.53	588.00	587.50	18	OK
	12	0.889		66.41	587.00			
4	16	1.58	1.58	117.47	584.00	585.00	18	OK
	16	1.58		117.87	586.00			

NOTE:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

AR-09

Mecadez Core Technologies Private Limited

Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	M20 Concrete For Culvert Raft			
		Quantity Cum	Frequency of Tests	Tests Required	Tests Carried Out
IV	**Concrete**				
1	Compressive strength test	4.37	1 to 5cum=1 sample 6 to 15 cum=2 sample 16 to 30cum=3 smaple 31 to 50cum= 4 sample 51cum and above= one additonal sample for every additional 50 cum or part therof	1	1
	7-days				
	28-days				

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

consultant

contractor

ASSISTANT ENGINEER

ASSISTANT EXE. ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Culvert Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	12-Dec-2022
Tested Date	19-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	7.85	150*150*150	2325.93	326.00	0.0225	14.49	14.50	14.48
2	20	7	7.94	150*150*150	2352.59	324.00	0.0225	14.40		
3	20	7	7.18	150*150*150	2127.41	329.00	0.0225	14.62		
4	20	7	7.14	150*150*150	2115.56	330.00	0.0225	14.67	14.46	
5	20	7	7.28	150*150*150	2157.04	321.00	0.0225	14.27		
6	20	7	7.35	150*150*150	2177.78	325.00	0.0225	14.44		

Results: 7-days Compressive strength of Concrete is 14.48 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Mecadez Core Technologies Private Limited

Authorised Signature

AB-09

AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Culvert Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	12-Dec-2022
Tested Date	9-Jan-2023

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	7.49	150*150*150	2219.26	469.00	0.0225	20.84	20.61	20.64
2	20	28	7.85	150*150*150	2325.93	455.00	0.0225	20.22		
3	20	28	8.49	150*150*150	2515.56	467.00	0.0225	20.76		
4	20	28	7.15	150*150*150	2118.52	472.00	0.0225	20.98	20.67	
5	20	28	8.49	150*150*150	2515.56	456.00	0.0225	20.27		
6	20	28	8.47	150*150*150	2509.63	467.00	0.0225	20.76		

Results: 28-days Compressive strength of Concrete is 20.64 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:
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Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Mecadez Core Technologies Private Limited

Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	M20 Concrete For Culvert Wall			
		Quantity Cum	Frequency of Tests	Tests Required	Tests Carried Out
IV	**Concrete**				
1	Compressive strength test	5.14	1 to 5cum=1 sample 6 to 15 cum=2 sample 16 to 30cum=3 smaple 31 to 50cum= 4 sample 51cum and above= one additonal sample for every additional 50 cum or part therof	1	1
	7-days				
	28-days				

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited

consultant

contractor

ASSISTANT ENGINEER

ASSISTANT EXE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Culvert Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	19-Dec-2022
Tested Date	26-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.46	150*150*150	2506.67	320.00	0.0225	14.22	14.52	14.48
2	20	7	8.47	150*150*150	2509.63	329.00	0.0225	14.62		
3	20	7	8.24	150*150*150	2441.48	331.00	0.0225	14.71		
4	20	7	7.19	150*150*150	2130.37	328.00	0.0225	14.58	14.44	
5	20	7	7.28	150*150*150	2157.04	326.00	0.0225	14.49		
6	20	7	7.28	150*150*150	2157.04	321.00	0.0225	14.27		

Results: 7-days Compressive strength of Concrete is 14.48 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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iv. Any query regarding the report must be reported immediately.

For Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited

Authorised Signature

ABR-09

AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Culvert Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	19-Dec-2022
Tested Date	16-Jan-2023

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.49	150*150*150	2515.56	468.00	0.0225	20.80	20.59	20.65
2	20	28	8.47	150*150*150	2509.63	471.00	0.0225	20.93		
3	20	28	7.25	150*150*150	2148.15	451.00	0.0225	20.04		
4	20	28	7.94	150*150*150	2352.59	471.00	0.0225	20.93	20.71	
5	20	28	8.47	150*150*150	2509.63	455.00	0.0225	20.22		
6	20	28	8.99	150*150*150	2663.70	472.00	0.0225	20.98		

Results: 28-days Compressive strength of Concrete is 20.65 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:
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For Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited MECADEZ

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Mecadez Core Technologies Private Limited

Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	M20 Concrete For Drain Raft			
		Quantity Cum	Frequency of Tests	Tests Required	Tests Carried Out
IV	**Concrete**				
1	Compressive strength test	97.58	1 to 5cum=1 sample 6 to 15 cum=2 sample 16 to 30cum=3 smaple 31 to 50cum= 4 sample 51cum and above= one additonal sample for every additional 50 cum or part therof	5	5
	7-days				
	28-days				

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited MECADEZ

consultant

contractor

ASSISTANT ENGINEER

ASSISTANT EXE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	23-Nov-2022
Tested Date	30-Nov-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	7.89	150*150*150	2337.78	326.00	0.0225	14.49	14.50	14.52
2	20	7	7.48	150*150*150	2216.30	324.00	0.0225	14.40		
3	20	7	7.34	150*150*150	2174.81	329.00	0.0225	14.62		
4	20	7	7.49	150*150*150	2219.26	330.00	0.0225	14.67	14.53	
5	20	7	8.49	150*150*150	2515.56	327.00	0.0225	14.53		
6	20	7	7.88	150*150*150	2334.81	324.00	0.0225	14.40		

Results: 7-days Compressive strength of Concrete is 14.52 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited MECADEZ

Authorised Signature

AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	2
Casting Date	23-Nov-2022
Tested Date	30-Nov-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.14	150*150*150	2411.85	329.00	0.0225	14.62	14.49	14.57
2	20	7	7.48	150*150*150	2216.30	321.00	0.0225	14.27		
3	20	7	8.49	150*150*150	2515.56	328.00	0.0225	14.58		
4	20	7	7.49	150*150*150	2219.26	330.00	0.0225	14.67	14.65	
5	20	7	8.47	150*150*150	2509.63	326.00	0.0225	14.49		
6	20	7	7.22	150*150*150	2139.26	333.00	0.0225	14.80		

Results: 7-days Compressive strength of Concrete is 14.57 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	3
Casting Date	26-Nov-2022
Tested Date	3-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.23	150*150*150	2438.52	331.00	0.0225	14.71	14.58	14.66
2	20	7	7.57	150*150*150	2242.96	323.00	0.0225	14.36		
3	20	7	8.58	150*150*150	2542.22	330.00	0.0225	14.67		
4	20	7	7.58	150*150*150	2245.93	332.00	0.0225	14.76	14.74	
5	20	7	8.56	150*150*150	2536.30	328.00	0.0225	14.58		
6	20	7	7.31	150*150*150	2165.93	335.00	0.0225	14.89		

Results: 7-days Compressive strength of Concrete is 14.66 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Authorised Signature

AR-09

AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	4
Casting Date	26-Nov-2022
Tested Date	3-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.33	150*150*150	2468.15	333.00	0.0225	14.80	14.67	14.75
2	20	7	7.67	150*150*150	2272.59	325.00	0.0225	14.44		
3	20	7	8.68	150*150*150	2571.85	332.00	0.0225	14.76		
4	20	7	7.68	150*150*150	2275.56	334.00	0.0225	14.84	14.83	
5	20	7	8.66	150*150*150	2565.93	330.00	0.0225	14.67		
6	20	7	7.41	150*150*150	2195.56	337.00	0.0225	14.98		

Results: 7-days Compressive strength of Concrete is 14.75 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	5
Casting Date	5-Dec-2022
Tested Date	12-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.42	150*150*150	2494.81	335.00	0.0225	14.89	14.76	14.84
2	20	7	7.76	150*150*150	2299.26	327.00	0.0225	14.53		
3	20	7	8.77	150*150*150	2598.52	334.00	0.0225	14.84		
4	20	7	7.77	150*150*150	2302.22	336.00	0.0225	14.93	14.92	
5	20	7	8.75	150*150*150	2592.59	332.00	0.0225	14.76		
6	20	7	7.50	150*150*150	2222.22	339.00	0.0225	15.07		

Results: 7-days Compressive strength of Concrete is 14.84 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	23-Nov-2022
Tested Date	21-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.47	150*150*150	2509.63	462.00	0.0225	20.53	20.74	20.61
2	20	28	8.49	150*150*150	2515.56	468.00	0.0225	20.80		
3	20	28	8.49	150*150*150	2515.56	470.00	0.0225	20.89		
4	20	28	8.47	150*150*150	2509.63	455.00	0.0225	20.22	20.47	
5	20	28	8.72	150*150*150	2583.70	467.00	0.0225	20.76		
6	20	28	7.94	150*150*150	2352.59	460.00	0.0225	20.44		

Results: 28-days Compressive strength of Concrete is 20.61 N/mm2
Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:
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AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	2
Casting Date	23-Nov-2022
Tested Date	21-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	7.84	150*150*150	2322.96	467.00	0.0225	20.76	20.89	20.96
2	20	28	7.49	150*150*150	2219.26	471.00	0.0225	20.93		
3	20	28	8.48	150*150*150	2512.59	472.00	0.0225	20.98		
4	20	28	8.48	150*150*150	2512.59	455.00	0.0225	20.22	21.02	
5	20	28	8.47	150*150*150	2509.63	497.00	0.0225	22.09		
6	20	28	8.94	150*150*150	2648.89	467.00	0.0225	20.76		

Results: 28-days Compressive strength of Concrete is 20.96 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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Authorised Signature

AB-09

AEE (WRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	3
Casting Date	26-Nov-2022
Tested Date	24-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	7.93	150*150*150	2349.63	469.00	0.0225	20.84	20.98	21.04
2	20	28	7.58	150*150*150	2245.93	473.00	0.0225	21.02		
3	20	28	8.57	150*150*150	2539.26	474.00	0.0225	21.07		
4	20	28	8.57	150*150*150	2539.26	457.00	0.0225	20.31	21.11	
5	20	28	8.56	150*150*150	2536.30	499.00	0.0225	22.18		
6	20	28	9.03	150*150*150	2675.56	469.00	0.0225	20.84		

Results: 28-days Compressive strength of Concrete is 21.04 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	4
Casting Date	26-Nov-2022
Tested Date	24-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.03	150*150*150	2379.26	471.00	0.0225	20.93	21.07	21.13
2	20	28	7.68	150*150*150	2275.56	475.00	0.0225	21.11		
3	20	28	8.67	150*150*150	2568.89	476.00	0.0225	21.16		
4	20	28	8.67	150*150*150	2568.89	459.00	0.0225	20.40	21.20	
5	20	28	8.66	150*150*150	2565.93	501.00	0.0225	22.27		
6	20	28	9.13	150*150*150	2705.19	471.00	0.0225	20.93		

Results: 28-days Compressive strength of Concrete is 21.13 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:
i. The results indicated above are based on the tests carried out on the sample at site.
ii. The results relate only to the items tested.
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Mecadez Core Technologies Private Limited

Authorised Signature

AGE (MRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Raft
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	5
Casting Date	5-Dec-2022
Tested Date	2-Jan-2023

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.12	150*150*150	2405.93	473.00	0.0225	21.02	21.16	21.22
2	20	28	7.77	150*150*150	2302.22	477.00	0.0225	21.20		
3	20	28	8.76	150*150*150	2595.56	478.00	0.0225	21.24		
4	20	28	8.76	150*150*150	2595.56	461.00	0.0225	20.49	21.29	
5	20	28	8.75	150*150*150	2592.59	503.00	0.0225	22.36		
6	20	28	9.22	150*150*150	2731.85	473.00	0.0225	21.02		

Results: 28-days Compressive strength of Concrete is 21.22 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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Mecadez Core Technologies Private Limited

Authorised Signature

AEE (WTP) BD

Mecadez Core Technologies Private Limited

Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	M20 Concrete For Drain Wall			
		Quantity Cum	Frequency of Tests	Tests Required	Tests Carried Out
IV	**Concrete**				
1	Compressive strength test	128.59	1 to 5cum=1 sample 6 to 15 cum=2 sample 16 to 30cum=3 smaple 31 to 50cum= 4 sample 51cum and above= one additonal sample for every additional 50 cum or part therof	6	6
	7-days				
	28-days				

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited MECADEZ

consultant

contractor

ASSISTANT ENGINEER

ASSISTANT EXE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	30-Nov-2022
Tested Date	7-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.47	150*150*150	2509.63	326.00	0.0225	14.49	14.50	14.53
2	20	7	8.49	150*150*150	2515.56	324.00	0.0225	14.40		
3	20	7	8.47	150*150*150	2509.63	329.00	0.0225	14.62		
4	20	7	7.49	150*150*150	2219.26	320.00	0.0225	14.22	14.56	
5	20	7	7.49	150*150*150	2219.26	333.00	0.0225	14.80		
6	20	7	7.88	150*150*150	2334.81	330.00	0.0225	14.67		

Results: 7-days Compressive strength of Concrete is 14.53 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	2
Casting Date	30-Nov-2022
Tested Date	7-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.49	150*150*150	2515.56	334.00	0.0225	14.84	14.53	14.58
2	20	7	8.47	150*150*150	2509.63	326.00	0.0225	14.49		
3	20	7	7.49	150*150*150	2219.26	321.00	0.0225	14.27		
4	20	7	7.48	150*150*150	2216.30	329.00	0.0225	14.62	14.62	
5	20	7	8.58	150*150*150	2542.22	325.00	0.0225	14.44		
6	20	7	8.97	150*150*150	2657.78	333.00	0.0225	14.80		

Results: 7-days Compressive strength of Concrete is 14.58 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	3
Casting Date	3-Dec-2022
Tested Date	10-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.58	150*150*150	2542.22	336.00	0.0225	14.93	14.62	14.67
2	20	7	8.56	150*150*150	2536.30	328.00	0.0225	14.58		
3	20	7	7.58	150*150*150	2245.93	323.00	0.0225	14.36		
4	20	7	7.57	150*150*150	2242.96	331.00	0.0225	14.71	14.71	
5	20	7	8.67	150*150*150	2568.89	327.00	0.0225	14.53		
6	20	7	9.06	150*150*150	2684.44	335.00	0.0225	14.89		

Results: 7-days Compressive strength of Concrete is 14.67 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	4
Casting Date	3-Dec-2022
Tested Date	10-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.68	150*150*150	2571.85	338.00	0.0225	15.02	14.71	14.76
2	20	7	8.66	150*150*150	2565.93	330.00	0.0225	14.67		
3	20	7	7.68	150*150*150	2275.56	325.00	0.0225	14.44		
4	20	7	7.67	150*150*150	2272.59	333.00	0.0225	14.80	14.80	
5	20	7	8.77	150*150*150	2598.52	329.00	0.0225	14.62		
6	20	7	9.16	150*150*150	2714.07	337.00	0.0225	14.98		

Results: 7-days Compressive strength of Concrete is 14.76 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	5
Casting Date	12-Dec-2022
Tested Date	19-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	7	8.77	150*150*150	2598.52	340.00	0.0225	15.11	14.80	14.84
2	20	7	8.75	150*150*150	2592.59	332.00	0.0225	14.76		
3	20	7	7.77	150*150*150	2302.22	327.00	0.0225	14.53		
4	20	7	7.76	150*150*150	2299.26	335.00	0.0225	14.89	14.89	
5	20	7	8.86	150*150*150	2625.19	331.00	0.0225	14.71		
6	20	7	9.25	150*150*150	2740.74	339.00	0.0225	15.07		

Results: 7-days Compressive strength of Concrete is 14.84 N/mm2

Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	6
Casting Date	12-Dec-2022
Tested Date	19-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	7	8.87	150*150*150	2628.15	342.00	0.0225	15.20	14.89	14.93
2	20	7	8.85	150*150*150	2622.22	334.00	0.0225	14.84		
3	20	7	7.87	150*150*150	2331.85	329.00	0.0225	14.62		
4	20	7	7.86	150*150*150	2328.89	337.00	0.0225	14.98	14.98	
5	20	7	8.96	150*150*150	2654.81	333.00	0.0225	14.80		
6	20	7	9.35	150*150*150	2770.37	341.00	0.0225	15.16		

Results: 7-days Compressive strength of Concrete is 14.93 N/mm2
Comments: 7-days Compressive strength of M20 Concrete should not be less than 14 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	1
Casting Date	30-Nov-2022
Tested Date	28-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	7.48	150*150*150	2216.30	467.00	0.0225	20.76	20.87	20.90
2	20	28	7.49	150*150*150	2219.26	470.00	0.0225	20.89		
3	20	28	8.49	150*150*150	2515.56	472.00	0.0225	20.98		
4	20	28	7.46	150*150*150	2210.37	472.00	0.0225	20.98	20.93	
5	20	28	7.64	150*150*150	2263.70	470.00	0.0225	20.89		
6	20	28	8.18	150*150*150	2423.70	471.00	0.0225	20.93		

Results: 28-days Compressive strength of Concrete is 20.90 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:
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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	2
Casting Date	30-Nov-2022
Tested Date	28-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.49	150*150*150	2515.56	464.00	0.0225	20.62	20.79	20.75
2	20	28	7.25	150*150*150	2148.15	472.00	0.0225	20.98		
3	20	28	7.36	150*150*150	2180.74	467.00	0.0225	20.76		
4	20	28	8.14	150*150*150	2411.85	472.00	0.0225	20.98	20.71	
5	20	28	8.99	150*150*150	2663.70	455.00	0.0225	20.22		
6	20	28	8.47	150*150*150	2509.63	471.00	0.0225	20.93		

Results: 28-days Compressive strength of Concrete is 20.75 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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28-12-22

AEE (VRP) SD

Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)- 1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	3
Casting Date	3-Dec-2022
Tested Date	31-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.58	150*150*150	2542.22	466.00	0.0225	20.71	20.87	20.84
2	20	28	7.34	150*150*150	2174.81	474.00	0.0225	21.07		
3	20	28	7.45	150*150*150	2207.41	469.00	0.0225	20.84		
4	20	28	8.23	150*150*150	2438.52	474.00	0.0225	21.07	20.80	
5	20	28	9.08	150*150*150	2690.37	457.00	0.0225	20.31		
6	20	28	8.56	150*150*150	2536.30	473.00	0.0225	21.02		

Results: 28-days Compressive strength of Concrete is 20.84 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	4
Casting Date	3-Dec-2022
Tested Date	31-Dec-2022

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.68	150*150*150	2571.85	468.00	0.0225	20.80	20.96	20.93
2	20	28	7.44	150*150*150	2204.44	476.00	0.0225	21.16		
3	20	28	7.55	150*150*150	2237.04	471.00	0.0225	20.93		
4	20	28	8.33	150*150*150	2468.15	476.00	0.0225	21.16	20.89	
5	20	28	9.18	150*150*150	2720.00	459.00	0.0225	20.40		
6	20	28	8.66	150*150*150	2565.93	475.00	0.0225	21.11		

Results: 28-days Compressive strength of Concrete is 20.93 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	5
Casting Date	12-Dec-2022
Tested Date	9-Jan-2023

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength (N/mm2)
1	20	28	8.77	150*150*150	2598.52	470.00	0.0225	20.89	21.05	21.01
2	20	28	7.53	150*150*150	2231.11	478.00	0.0225	21.24		
3	20	28	7.64	150*150*150	2263.70	473.00	0.0225	21.02		
4	20	28	8.42	150*150*150	2494.81	478.00	0.0225	21.24	20.98	
5	20	28	9.27	150*150*150	2746.67	461.00	0.0225	20.49		
6	20	28	8.75	150*150*150	2592.59	477.00	0.0225	21.20		

Results: 28-days Compressive strength of Concrete is 21.01 N/mm2

Comments: 28-days Compressive strength of M20 Concrete should not be less than 20 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	M20 Concrete For Drain Wall
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Concrete
Sample No	6
Casting Date	12-Dec-2022
Tested Date	9-Jan-2023

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	28	8.87	150*150*150	2628.15	472.00	0.0225	20.98	21.14	21.10
2	20	28	7.63	150*150*150	2260.74	480.00	0.0225	21.33		
3	20	28	7.74	150*150*150	2293.33	475.00	0.0225	21.11		
4	20	28	8.52	150*150*150	2524.44	480.00	0.0225	21.33	21.07	
5	20	28	9.37	150*150*150	2776.30	463.00	0.0225	20.58		
6	20	28	8.85	150*150*150	2622.22	479.00	0.0225	21.29		

Results: 28-days Compressive strength of Concrete is 21.10 N/mm2

Note:
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Project Management Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	100mm Thick Precost Slab Core Cut			
		Quantity Sqm	Frequency of Tests	Tests Required	Tests Carried Out
	Core Cutting				
1	Compressive strength test	260.19	One Test Per Source of supply	1	1

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited MECHANICAL

consultant

contractor

ASSISTANT ENGINEER

ASSISTANT EXE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Concrete Compressive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	100mm Thick Precost Slab Core Cut
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Test Location	Laboratory
Sample No	1
Tested Date	10-Dec-2022

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (Kg/m³)	H/D	Correction Factor (Based on H/D)	Failure Load (KN)	Core Strength (N/mm²)	Correction Factor for the dia. (Strength of the Core X 1.08)	Corrected Cylinder Compressive Strength (N/mm²)	Equivalent Cube Compressive Strength (N/mm²)
1	100.00	98.64	0.62	799.971	0.9864	0.89	132.157	16.82	18.17	20.40	25.50
2	100.00	98.79	0.61	785.873	0.9879	0.89	131.69	16.76	18.10	20.32	25.40
3	100.00	99.82	0.6	765.013	0.9982	0.89	129.96	16.54	17.86	20.03	25.04

Results: Compressive strength of 100mm thick Precast Slab is 25.31 N/mm2

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

AEE (VRP) SD

Mecadez Core Technologies Private Limited

Project Management Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	230 mm Thick Precost Slab Core Cut			
	Core Cutting	Quantity Sqm	Frequency of Tests	Tests Required	Tests Carried Out
1	Compressive strength test	20.16	One Test Per Source of supply	1	1

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited

consultant

contractor

ASSISTANT ENGINEER

ASSISTANT EXE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Concrete Compressive strength

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	230 mm Thick Precost Slab Core Cut
Contractor	M/s SMLP Aspahalts
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Test Location	Laboratory
Sample No	1
Tested Date	10-Dec-2022

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (Kg/m³)	H/D	Correction Factor (Based on H/D)	Failure Load (KN)	Core Strength (N/mm²)	Correction Factor for the dia. (Strength of the Core X 1.08)	Corrected Cylinder Compressive Strength (N/mm²)	Equivalent Cube Compressive Strength (N/mm²)
1	100.00	229.17	1.47	816.385	2.2917	1.03	151.407	19.27	20.81	20.18	25.22
2	100.00	227.98	1.42	792.733	2.2798	1.03	158.01	20.11	21.72	21.08	26.35
3	100.00	228.54	1.49	829.773	2.2854	1.03	156.75	19.95	21.55	20.90	26.13

Results: Compressive strength of 230mm thick Precast Slab is 25.90 N/mm2

Note:

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Project Management Consultancy Services

Summary of Frequencies of Field Tests and Lab Tests Conducted

Name of the work: **Package No.06 Consists of 14 Works**

Job No: **MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR**

Contractor **M/s SMLP Aspahalts**

Sl. No	Particulars of the Tests	Wet Mix Macadam (WMM)			
		Quantity Cum	Frequency of Tests	Tests Required	Tests Carried Out
1	Aggregate Impact Value	219.64	1 Test / 1000 m^3	1	1
2	Combined Flakiness & Elongation Indices		1Test / 500 m^3	1	1
3	Aggregate gradation		1Test / 200 m^3	2	2
4	Atterberg limits		1Test / 200 m^3	2	2
5	Density of Compacted Layer		1 Test / 1000m^2	1	1

Note: Frequency of tests as per Specifications MORT&H, V Revision, Section 900.

Mecadez Core Technologies Private Limited MECADEZ

Consultant

Contractor

ASSISTANT ENGINEER

ASSISTANT EXE ENGINEER

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Test Report
Aggregate Impact Value

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Material	Coarse Aggregate
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Sample No	1
Sample Collection Date	25-Mar-2023
Tested Date	26-Mar-2023

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1337	1343
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	377	383
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	91	90
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	286	293
6	Aggregate Impact Value (w4 / w3)x100	%	24.14	23.50
7	Specified Limit	%	30	

Results: Average Aggregate Impact Value: **23.82** %

Note:

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Test Report
Aggregate Particle Shape

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Coarse Aggregates
Sample No	1
Sample Collection Date	25-Mar-2023
Tested Date	26-Mar-2023

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	38.46	19.5	0	58.5	0
31.5	25	62.35	16.95	0	-	0
25	20	1447.56	13.5	127.56	40.5	145.56
20	16	1406.25	10.8	85.25	32.4	112.25
16	12.5	956.36	8.55	151.36	25.6	158.36
12.5	10	523.46	6.75	125.46	20.2	131.46
10	6.3	258.36	4.89	80.36	14.7	87.36
	SW	4692.8	SWf	569.99	SWe	634.99

Flakiness Index 12.15 %
Elongation Index 13.53 %
Combined Flakiness and Elongation Indices : 25.68 %
Comments: Maximum allowable Combined Flakiness and Elongation Indices for WMM is 35%

Note:

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For Mecadez Core Technologies Private Limited

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AE-09

AEE (VRP) SD

Test Report
Aggregate Gradation

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Coarse Aggregates
Sample No	1
Sample Collection Date	25-Mar-2023
Tested Date	26-Mar-2023

Weight of Sample: 11093.00 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	238.45	2.15	2.15	97.85	95-100	
3	22.4	2898.36	26.13	28.28	71.72	60-80	
4	11.2	2097.63	18.91	47.19	52.81	40-60	
5	4.75	2198.36	19.82	67.01	32.99	25-40	
6	2.36	1489.36	13.43	80.44	19.56	15-30	
7	0.6	589.36	5.31	85.75	14.25	8-22	
8	0.075	1354.26	12.21	97.96	2.04	0-5	

Note:

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AR-09

ABE (MRP) 6D

Test Report
Aggregate Gradation

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Coarse Aggregates
Sample No	2
Sample Collection Date	25-Mar-2023
Tested Date	26-Mar-2023

Weight of Sample: 11143.00 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	256.36	2.3	2.3	97.7	95-100	
3	22.4	2749.36	24.67	26.97	73.03	60-80	
4	11.2	2108.64	18.92	45.89	54.11	40-60	
5	4.75	2184.26	19.6	65.49	34.51	25-40	
6	2.36	1529.1	13.72	79.21	20.79	15-30	
7	0.6	590.24	5.3	84.51	15.49	8-22	
8	0.075	1409.65	12.65	97.16	2.84	0-5	

Note:

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Test Report
Liquid and Plastic Limit by Cone Apparatus

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Test Method	Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Sample No	1
Sample Collection	25-Mar-2023
Tested Date	26-Mar-2023

Sl No	Description	Unit	Liquid Limit	Plastic Limit
	Penetration	mm	Non Plastic	Non Plastic
1	Container No	no		
2	Weight of container,(A)	gm		
3	Weight of container + wet soil, (B)	gm		
4	Weight of container + dry soil, (C)	gm		
5	Weight of water, D=(B - C)	gm		
6	Weight of dry soil, E=(C - A)	gm		
7	Water Content, D/E x 100 (%)	gm		

Comments: <6 so Non Plastic

Note:

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Test Report
Liquid and Plastic Limit by Cone Apparatus

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Test Method	Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Laboratory
Material	Soil
Sample No	2
Sample Collection	25-Mar-2023
Tested Date	26-Mar-2023

Sl No	Description	Unit	Liquid Limit	Plastic Limit
	Penetration	mm	Non Plastic	Non Plastic
1	Container No	no		
2	Weight of container,(A)	gm		
3	Weight of container + wet soil, (B)	gm		
4	Weight of container + dry soil, (C)	gm		
5	Weight of water, D=(B - C)	gm		
6	Weight of dry soil, E=(C - A)	gm		
7	Water Content, D/E x 100 (%)	gm		

Comments: <6 so Non Plastic

Note:

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Test Report
Field Density Test by Sand Replacement Method

Project Name	Package No.06 Consists of 14 Works
Client	Excecutive Engineer - Byatarayanapura Division
Job No	MCTPL/BBMP/EE/BTP/PMC/W-09/P-3877/2022-23/QR
Mix Type	Wet Mix Macadam (WMM)
Contractor	M/s SMLP Aspahalts
Test Method	IS: 2720 (Part - 16) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Sample No	1
Tested Date	28-Mar-2023

Test Hole No	**1**
MDD	2.26
OMC in %	5.45
Bulk Density Ys	1.392
Weight of Sand In cone W1 (gm)	1195
Weight Of Wet soil From Hole (W2)	4942
Wt Of Sand +Cylinder Before Pouring (W3)gm	17000
Wt Of Sand +Cylinder After Pouring (W4) gm	12864
Wt Of Sand In Hole: W5 = W3 - W4- W1 (gm)	2941
Volume of Hole: V= W5/ Ys	2112.79
Bulk Density Yb= W2/V (gm/cc)	2.34
Moisture Meter Reading (%)	5.2
Moisture Content : w (From Graph In %)	-
Dry Density Yd = Yb/(1+W/100)	2.22
Field Compaction(%)	98.38

Note:

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